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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,251	11/08/2001	Akira Kuriyama	35.G2932	5033
5514	7590	04/19/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			MAYEKAR, KISHOR	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No. 09/986,251	Applicant(s) KURIYAMA ET AL.	
	Examiner Kishor Mayekar	Art Unit 1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-54 and 56-59 is/are pending in the application.
- 4a) Of the above claim(s) 28-54 and 56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-27 and 57-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments with respect to claims 1-3, 5-27 and 57-59 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, the phrase "chlorine" lacks antecedent basis.

Claim Rejections - 35 USC § 102 and § 103

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 3, 5 and 57 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by HAUG et al. (5,871,620). HAUG's invention is directed to a method and device for reducing the nitrate content of water. HAUG discloses that the apparatus comprises all the structures as claimed (see Fig. 1; col. 2, lines 40-44; paragraph crossing cols. 2 and 3; and claim 15).

7. Claims 2 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over HAUG '620. The difference between HAUG and the instant claims is the intended use of the apparatus. The subject matter as a whole would

have been obvious to one having ordinary skill in the art at the time the invention was made to have modified HAUG's teachings because it has been held on the intended use of a device that "apparatus claims cover what a device is, not what a device does", *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ 2d 1525.

8. Claims 27, 58 and 59 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by DUNN et al. (5,900,211). DUNN's invention is directed a method and device of deactivating microorganisms in water. DUNN discloses that the device comprises all the structures acclaimed (see Fig.2 and paragraph crossing cols 8 and 9).

9. Claims 1, 3, 5, 20, 21, 27 and 57 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by WO 00/23381 of which STROBBEL et al. (6,160,250) is a national stage entry thereof and is used for the English version. STROBEL's invention (the English version) is directed to a device for purifying fluid with photonic pulses. STROBEL discloses that the device comprises all the structures as claimed (Fig. 2; col. 3, lines 42-47; and col. 4, lines 21-33).

10. Claims 2 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO '381. The difference between STROBEL (the English version) and the instant claims is the intended use of the apparatus. The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified STROBEL's teachings because it has been held on the intended use of a device that "apparatus claims cover what a device is, not what a device does", *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ 2d 1525.

11. Claims 1-3, 5-26 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/41311 of (which PHILIPPS et al. (6,280,615) is a national stage entry and is used for the English version) in view of TAO et al. (6,299,844). PHILIPPS' invention (the English version) is directed to a fluid mixer. PHILIPPS discloses in Fig. 2 or 6 the mixer comprises all the structures as claimed. PHILIPPS further discloses the mixer has a mixing chamber to bring the fluid into close proximity to the UV radiation (col. 3, lines 25-28). The difference between PHILIPPS and the above claims is the provision of a light reflector positioned outside the case. TAO, a reference cited in the last Office action, shows the use

of the above limitation in a photochemical reactor (Fig. 1 and col. 3, lines 30-40). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified PHILIPPS' teachings as suggested by TAO because this would result in increasing the effective energy density of the light that impinge upon the volume of fluid passing therethrough.

As to the subject matter of each of claims 2, 9-19 and 22-26, The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified PHILIPPS' teachings because it has been held on the intended use of a device that "apparatus claims cover what a device is, not what a device does", *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ 2d 1525.

As to the subject matter of claims 20 and 21, PHILIPPS discloses that preferably the UV source operates at wavelengths of about 254 nm and 180 nm (col. 3, lines 49-56). As such, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified PHILIPPS' teachings because it has been settled that proper adjustment of a known effective variable of a known or obvious process is within

the capabilities of one having ordinary skill in the art. *In re Aller* 105 USPQ 233;
In re Boesch 205 USPQ 215.

Response to Arguments

12. Applicant's arguments filed October 22, 2003 have been fully considered but they are not persuasive because of the new grounds of rejection as set forth in the paragraph above.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

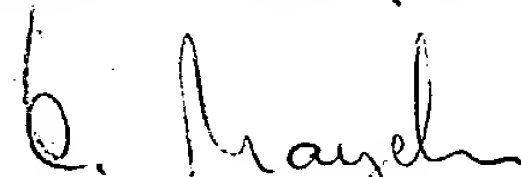
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the

advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kishor Mayekar
Primary Examiner
Art Unit 1753